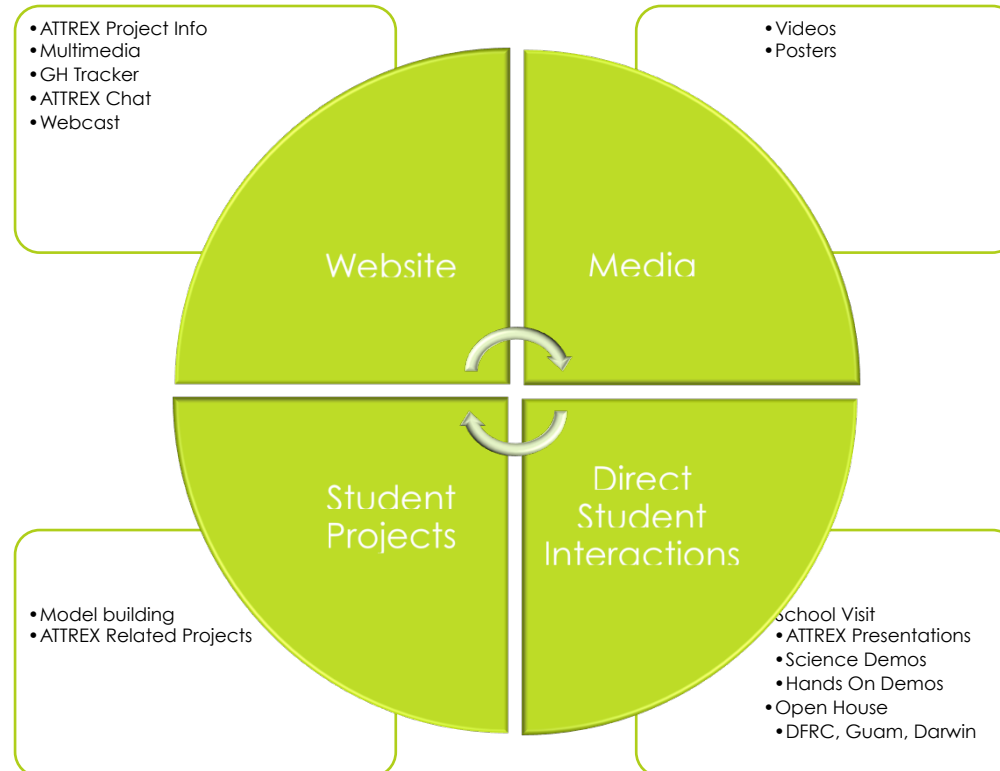


# ATTREX

Education and Public Outreach



<http://espo.arc.nasa.gov/missions/attrex-epo>

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Microwave Temperature


ATTREX - Microwave Temperature Profiler

View Image Gallery

# ATTREX Education Public Outreach



News



## Scientists Prepare for Coming ATTREX Climate Study

After a very successful campaign in the Fall of 2011, ATTREX is in preparations for its next campaign in early 2013.

Read More

01 ||

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ATTREX Home Page


Airborne Tropical Tropopause Experiment (ATTREX) will perform a series of measurement campaigns using the long-range NASA Global Hawk (GH) unmanned aircraft system (UAS) to investigate:

- The impact of stratospheric water vapor on Earth's energy budget and climate.
- Future changes in stratospheric humidity and ozone concentration as a response to climate change.
- To better understand the physical processes and chemical composition of the Tropical Tropopause Layer (TTL) which is the region of the atmosphere that controls the composition of the stratosphere.

Project Schedule

Current Activities


ATTREX Science Team Meeting



Main Project Website

More Current Activities

Global Hawk Model



Explore Global Hawk

Asset Tracker

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# ATTREX Education Public Outreach



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## ATTREX Science Team Meeting

The 2013 ATTREX Science Team Meeting will take place on June 11 and 12, 2012 in the city of Boulder, Colorado. Most of the focus will be on data quality, preliminary science analyses, and plans for future deployments.

### Location:

NCAR:

Foothills Lab, 3450 Mitchell Lane, Boulder, CO 80301

(<http://www2.ucar.edu/campus/foothills-laboratory-0-1-2-3>)

### MEETING AGENDA

#### June 11

0800-0830 Registration and coffee

0830-0845 Welcome/logistics – E. Jensen

0845-0900 Headquarters comments – K. Jucks

0900-0930 Update on aircraft and deployment status (cold temperature issues, Guam, etc.) – D. Jordan/D. Fratello

0930-0950 Fall 2011 meteorological overview – L. Pfister

0950-1020 BREAK

1020-1040 NOAA O3

1040-1100 mini-DOAS

1100-1120 UCATS

1120-1140 PCRS

1140-1200 AWAS

1200-1330 Lunch

1330-1350 SSFR

1350-1410 MMS

1410-1430 MTP

1430-1450 CPL

1450-1510 DLH

1510-1530 ULH

1530-1600 BREAK

1600-1620 NOAA H2O

1620-1640 FCDP

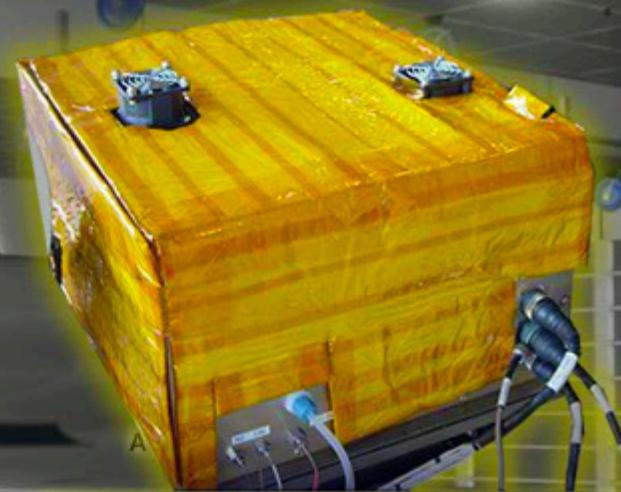
1640-1700 General discussion

#### June 12

0830-0850 Distribution of air mass origins and convective influence during the Fall

[Global Hawk 360](#)[GloPac Mission](#)[Video Gallery](#)[Photo Gallery](#)[Links](#)

Rotate Global Hawk left and right to  
explore its components and features



**UCATS - Unmanned Aircraft System  
Chromatograph for Atmospheric Trace Species**

The instrument collects air samples and uses  
two chromatographs to separate out different  
molecules and detect the presence and amount  
of greenhouse gases, ozone-depleting gases,  
carbon monoxide, and hydrogen.

[Aircraft Statistics](#) [More Information](#)

Page Last Updated: April 6, 2010  
Page Editor: Michael Carbajal  
NASA Official: Brian Dunbar

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- > Budgets, Strategic Plans and Accountability Reports
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# ATTREX Education Public Outreach



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## ATTREX instrument integration, DFRC 2011



Fast Cloud Droplet Probe (FCDP).

**Subject:** [Instrument](#)

**Aircraft:** [Global Hawk](#)

**Instrument:** [FCDP](#)

**Mission:** [ATTREX](#)



Page Last Updated: June 6, 2012

Page Editor: Jhony Zavaleta

NASA Official: Mike Craig

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## Image Gallery

**2012**

[Microwave Temperature Profiler](#)



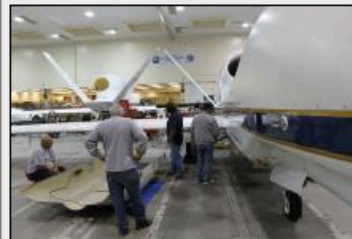
[ATTREX instrument integration, DFRC 2011](#)



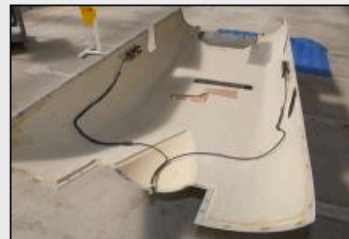
[ATTREX instrument integration, DFRC 2011](#)



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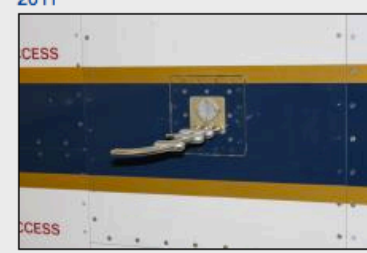
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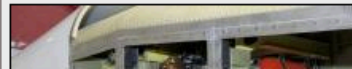
[ATTREX instrument integration, DFRC 2011](#)



[ATTREX instrument integration, DFRC 2011](#)



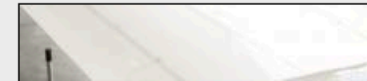
[ATTREX instrument integration, DFRC 2011](#)



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Airborne Tropical Tropopop...

Timeline ▾

Now ▾

Highlights ▾

Admin Panel



## Airborne Tropical Tropopause EXperiment (ATTREX)

44 likes · 2 talking about this

✓ Liked

Message



Government Organization  
ATTREX and our Education and Public Outreach

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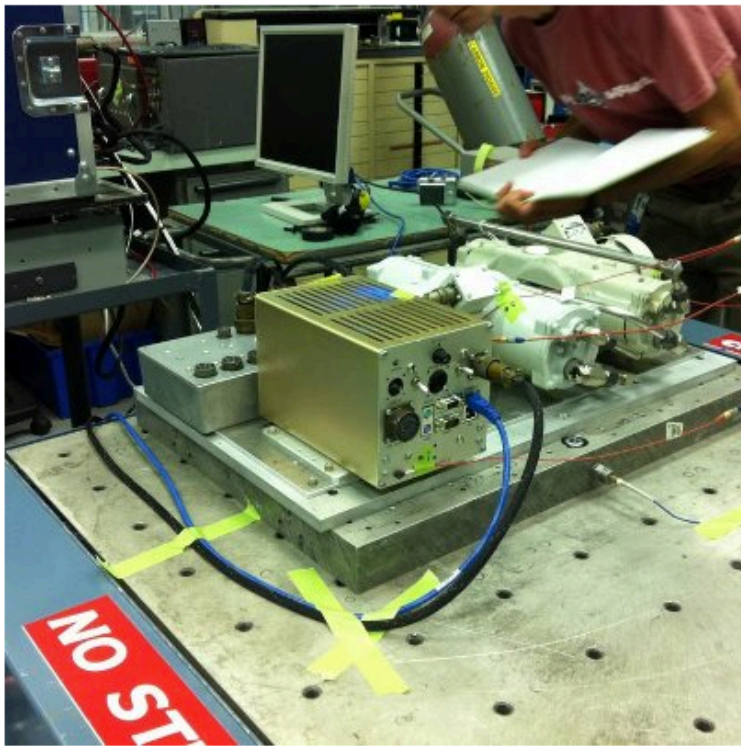
Write something...



Airborne Tropical Tropopause Experiment (ATTREX)

May 17

Instrument undergoing vibration test.



Like · Comment · Share

31 people reached · 32%



Airborne Tropical Tropopause Experiment (ATTREX)

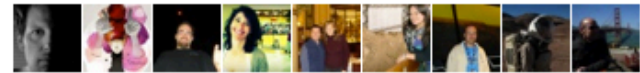
shared a link.

May 16

<http://www.nasa.gov/topics/earth/features/attrex.html>

38 Friends

Like Airborne Tropical Tropopause Experiment (ATTREX)



+29



Airborne Tropical Tropopause Experiment (ATTREX)

May 17

Global Hawk Country before full activity of instrument integration started.



Like · Comment · Share

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Airborne Tropical Tropopause Experiment (ATTREX)

May 16

# Student Direct Interactions

## ■ Schools:

- San Francisco Bay Area Schools
- DFRC local schools
- Potentially schools local to overseas deployments

## ■ Activities:

- ATTREX Mission Presentation
- ATTREX Science Presentation
- Science Experiment/Demo
- Student Project

# Teacher Direct Interactions

- Science presentation
- Mission Presentation
- ASP Tools
- Student project development & evaluation

# DFRC visit

- Groups of students from Bay Area and DFRC area selected from student voluntary project competition attend Open House



# Open House

- Public access to aircraft, instruments, and ATTREX media (posters, videos, etc.)